phone all. Today, many consumers do not know if they are making a toll call when they call the next town or two towns over.

(3) Our analysis identified another 53 million dollars as a 50 percent share of Verizon's cumulative merger savings available for other ratepayer benefits.

We propose these dollars be used to extend benefits for schools and libraries. We propose that Verizon both continue and expand the discounts which it offers for wideband and broadband access to New Jersey schools and libraries under it's Access New Jersey program, that was implemented by this Board.

Verizon proposes to extend the availability of contracts for educational discounts only until 2004. That means the last of such contracts will expire in 2007.

We propose that the availability of discounts should continue until there is a BPU determination that there is no

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longer a need for continued funding.

And that would mean all schools and all libraries in the State of New Jersey are properly wired.

(4) I would like to highlight another proposal of particular concern to our office, and that was a concern that I've heard the Commissioners here this morning ask Mr. Bone questions about.

In compliance with the mandate of the Universal Service goals of the Federal Telecommunications Act of 1996, we are recommending that Verizon enhance it's state Lifeline Program to ensure that low income consumers, who are defined as households with annual incomes at or below 175 percent of the Federal poverty line, obtain the full extent of Federal Lifeline telephone assistance.

J.H. BUEHRER & ASSOCIATES (973) 623-1974

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Which translates into a benefit of \$10.50 each month, instead of the current \$7.00.

Low income ratepayers are now being deprived of the full benefits available under all available Lifeline service. In addition, low income households who participate in public benefit programs such as Medicaid and SSI should be automatically enrolled in the Lifeline program.

This is what is done in the State of Ohio and California actually. Not relaxation of the procedures, not certifications, automatic enrollments for those currently enrolled in the State Medicaid and SSI. Not the option to opt out if they don't want to.

And privacy concerns as mentioned by Mr. Bone I believe are a red flag. The Department of Human Services has a list of eligible customers and these lists of eligible customers can automatically be enrolled in the Lifeline. In the Lifeline program, no privacy concerns. The lists are there in Trenton and let the same Department of Human Services who now is in charge of the LIHEAP dollars take over the dollars for LifeLine Assistance, same people, same people who would be administering these funds.

To address the lack of competition in New Jersey, we're also proposing in our plan an incentive for the phase in of local exchange competition. We would like to see local exchange competition in New Jersey but we don't want to see deregulation before we have competition.

Under this plan, Verizon New

Jersey's rate regulated services would be placed in two baskets and rate regulation would end once prescribed levels of market share are gained by competition.

Basket One would contain a local basic exchange service. Basket Two would contain all other rate regulated service such as vertical services like Call Waiting, Call Forwarding, and Caller ID.

Basket One rates for basic monthly service would be regulated once the Verizon market share dropped to 60 percent and Basket Two rates would be deregulated once Verizon New Jersey has a market share of less than 70 percent.

In other words, we would like to see competition developing in New Jersey. We would like to see an incentive for Verizon to - - and for all companies actually, we would like to see incentives for competition but we don't want to see deregulation before we have competition.

In addition, we are proposing modifications to the current service quality index that is used to measure Verizon's performance record regarding installation and maintenance of service, network reliability and call center performance.

The proposed Code of Conduct is modeled on rules already adopted by the BPU for electric and natural gas competition.

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New Jerseyans are at a critical juncture of accessing what has been called the Information Super Highway. The lack of competition in our local telephone market is looming as a serious road block to New Jerseyans to gain access to new technologies that are already arriving in other states.

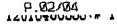
As Commissioner Butler has heard these quotes before at the hearing, but as science fiction writer William Gibson, who coined the term cyberspace, once remarked "The future is already here. It's just unevenly distributed."

Creating a competitive marketplace that will bring affordable new services to all ratepayers will ensure that New Jersey gets it's fair share of the future.

To close, with one of my favorite quotes, "when I look into the future, it's so bright it burns my eyes."

Thank you for this opportunity to address you this morning.

COMMISSIONER BUTLER: Thank you,





New Jersey State Office Forrestal Village, 132 Main Street Princeton, NJ 08540 (609) 987-0744 (609) 987-4634 Fax (609) 514-4272 TTY

January 7, 2002

President Connie O. Hughes
Commissioner Frederick F. Butler
Commissioner Carol J. Murphy
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102

In the Matter of the Consultative Report on the Application of Verizon NJ for FCC Authorization to Provide In-Region, InterLATA Services in NJ

Dear President Hughes, and Commissioners Butler and Murphy:

As you may well know, AARP is not a party to the above-referenced proceeding. However, as New Jersey State Director of AARP with more 1.3 million AARP New Jersey members, I'm writing on behalf of AARP to express our views at this critical time.

The BPU has both a mandate and the authority to protect the public interest. If the Board must make a recommendation at this time on Verizon NJ's section 271 application to the FCC at this time, AARP urges the Board to provide a negative recommendation. To do otherwise we believe would not be in the public interest.

AARP believes the public interest in this matter requires that a NJ Universal Service Fund first be established by the BPU before deeming Verizon's application to be consistent with the public interest. A NJ Universal Service Fund should include a Lifeline program that requires Verizon NJ to participate in a categorical, automatic enrollment process for those Verizon NJ customers who already receive benefits from other selected state assistance programs. The Universal Service Fund Lifeline program established should also provide for the full \$10.50 monthly Lifeline credit to qualifying New Jersey low-income households.

The federal Universal Service Fund (USF) was created to, among other things, assist low-income households by providing discounts that would reduce their telephone charges. All New Jersey households with telephone service have been paying into the federal USF. Estimates of New Jersey low-income households eligible for the current Lifeline credit, funded primarily by the federal USF, exceed 400,000 New Jersey families. Because categorical automatic enrollment is not a part of New Jersey's current Lifeline program, only 40,000 or so low-income New Jersey families are currently receiving Lifeline benefits.

New Jersey ranks 49th out of the 50 states in the percentage of its dollars returned from Washington. If the Board orders a Lifeline categorical automatic enrollment process, it is estimated more than 300,000 households would receive Lifeline benefits. This would bring annually approximately \$20,000,000 more in federal USF benefits back to 100,000's of New Jersey families who need the help most. We note that New York State adopted the categorical automatic enrollment process for its Lifeline program and more than 650,000 New York State low-income families now receive monthly Lifeline benefits.

AARP calls upon the Board to identify the establishment of a NJ Universal Service Fund featuring a Lifeline program with categorical automatic enrollment as an essential element relevant to the FCC's public interest determination of Verizon NJ's section 271 application. We further call upon the Board to order the creation of a state Universal Service Fund with a Lifeline program that provides for the full federal match and categorical automatic enrollment as soon as possible.

At this time AARP believes it would be premature and not in the public interest for the Board to endorse Verizon NJ's section 271 application to the FCC for authority to provide long distance telecommunication services in New Jersey.

Thank you for your consideration of these important issues that significantly impact our AARP New Jersey members, all New Jersey telephone consumers, and to our state's public policy on telecommunication services.

Sincerely,

James F. Dieterle

AARP New Jersey State Director

Copies: Henry Ogden
Blossom Peretz
Dennis Bone
Bruce Cohen
Jeff Kramer
Susan Weinstock
Marilyn Askin

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EDITORIALS

Tell Verizon 'no' for now

erizon, the company with a competitive stranglehold on local phone service in New Jersey, wents to enter the higrative long-distance market and is asking for permission to do so. The state Board of Public Utilities should approve that application — eventually, but definitely not today.

The BPU meets today under pressure to render a decision about Verizon's application and must act if it wants its opinion considered by the Pederal Communications Commission, which gives the final word on whether Verizon goes long-distance.

But Vertican forced that timetable by sending its application to the FCC last month, without waiting for the BPU to speak. Thus Verizon gave the BPU about 20 days to decide; and the deadline is today. The answer should be no. Version's more has every appearance of calculated errogance, an uttempt to deny this state time for the careful, deliberative review that other stales have given this issue. That is reason enough to turn down Verizon.

But the main reason is that Verizon has not met the principal requirement of the federal law. A local provider is not supposed to be cleared for long distance until there is open competition in the local market. That hasn't happened in New Jersey.

Competition is what we were supposed to get from the deregulation that broke AT&T into fragments, which included Verison and its Baby Bell siblings. Those companies retained control over the wires that bring phone scryice to homes and businesses. Unless Vertzon makes that network available to competitors, with reasonable rates and reliable service, there can be no competition.

Potential competitors say Verizon has not been providing fair access or prices. In November, the BFU agreed and reset the rates Verison charges its commetitors to use Verison's network. The BPU must give itself time to see if those lower rates belo stimulate more competition, time to see if Verizon plays fair with competitors so consumers get more choices

In New Jersey, only 7 percent of local service is provided by the competitinn. In New York, the local competition rose to about 10 percent and in Pennsylvania 14 percent before Verizor was allowed to go long-distance.

New Jersey's rateriaver advocate, the communer watchdox in these maiters, says the 7 percent in New Jersey is deceptive because most of that involves business customers. In a state with more than 4.4 million residential customers, just 59,000 get phone service from companies other than Verison.

That sounds like the old telephone company monopoly days and does not come close to the letter or spirit of the law.

We want Verizon hidding to provide long distance because the battle for customers would mean lower rates, But Verison's access to the long-distance market can come only after there is evidence that competition exists in the local market. Consumers deserve a choice, not commercial dictatorship.

We are not suspending that Verizon wait forever or be held hostage for years to competitors who full to take advantage of an open door. But it takes more than a few weeks to determine if a truly competitive elimate exists in the local market, and that must come first.

The BPU must tell Verison "no" today. And since Washington preaches the right of states to decide things for themselves, that "no" should be respected by the FCC.

aschle wins the skirmish

The war of words between President Bush and Senate Majority Leader Tom Daschie over the economy has been beating up of late, with both men delivering major addresses attacking the other, albeit without mentioning the other's name.

Who's winning? That will probably be that the coming

decade is dissinating the once gib stantial budget surplus while providing no tangible economic stimulus.

· In a speech delivered in Oregon. Bush secused Democrats of Laying to raise income taxes and said he would do everything in his power to resist this. In a line echoing his father's famous "Read my lipsi" no-siew-taxes pledge, the President said taxes Sen

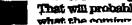


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The impact of technological change on market power and market failure in telecommunications

Edythe S Miller

Technological change is an historical constant-no era has lacked for it. But it cannot be denied that it waxes and wanes. Its pace has quickened recently, with dramatic impacts on telecommunications, broadening its very definition. No longer is it confined to voice sent over copper wire, but now also is applied to such applications as e-mail, data, and video transmitted over fiber optics, cable, and satellite (Blumenstein 2000b, R4). Recent years have seen the development of broadband, capable of high speed delivery of large quantities of voice and data, accessed through cable or digital subscriber lines (DSLs), copper telephone wires modified to boost capacity. Wireless telephony has become a mass phenomenon; broad usage of wireless Internet is thought to be imminent. Institutional economics consistently has recognized the inevitability and ongoing nature of technological change, and its importance in shaping the future. Where neoclassical models regularly hold technology constant or bury it in residuals, institutionalists, though interpreting the term diversely (e.g., Hamilton 1986), uniformly view it as a causal force. Moreover, actual and perceived relationships among technological change, regulation, and market forces influence public policy in subtle and often poorly understood ways.

Among the many grounds upon which economic regulation is faulted is its hindrance of innovation.' Deregulation is advocated as an incentive to risk taking, including investment in new technology. Moreover, technology is portrayed as destructive even of natural monopoly and as decentralizing because, for example, it produces substitutes (Friedman 1962, 28-9), eroding both monopoly on the supply side and consumer necessity on the demand side, modifying the "affected with a public interest" nature of the product. In any event, it is contended, market forces are sufficient to prevent firm dominance and restrain monopoly, even in imperfect markets. There thus is no need for collective control. A policy of deregulation is advocated, equated with competition, and viewed as encouraging efficiency. The policy duly has been broadly adopted. The paper examines this process in application to telecommunications.

Telecommunications is an indispensable foundation for the conduct

of business and personal interaction. For most, the telephone is the point of entry for many of the new services now offered. The structure of the industry and availability of service are consequential. However, telecommunications is characterized by inherent operating conditions that make questionable the potential for market control. For example, significant network and coordination economies impose requirements for large networks relative to size of the market. This, in turn, ordains the need for minimum efficient size, increasing the tendency toward concentration. These conditions, in combination with the requirement for large up-front investment, the existence of high sunk costs, and an obligation to build in advance of demand, comprise serious barriers to entry. Moreover, the need for high load and capacity factors virtually invites a strategy of price discrimination and cross-subsidization, a strategy facilitated by the segmented markets with market-specific demand elasticities that the industry serves. Further, control of access encourages abuse of monopoly power (Trebing 1994, 382-3; 1997, 31). In such industries, a common pattern is one of sequential selective price wars and consolidation.

Recent relevant legal and legislative history begins with the modified final judgment (MFJ) entered by a federal district court in 1984, concluding a Department of Justice anti-trust suit against AT&T. Among its provisions was the divestment of the twenty-two Bell operating companies as seven regional holding companies. In recognition of the market power conferred by control of the local distribution network (the local loop), the trial judge placed restrictions on the regional Bell holding companies (RBHCs, also the Bells), in respect to equipment manufacture, interstate and interLata transport, and information services generation and transmission. The RBHCs also were required to obtain line of business (LOB) waivers to engage in unrelated activities, to be limited to less than 10 percent of revenues. AT&T explicitly was granted the ability to engage in activities other than regulated communications. It was less generally recognized that the waiver process opened to the RBHCs a path to diversification. Waivers that did not violate the named exclusions were granted quite liberally (Miller 1993, 24).

From the start, the Bells opposed the restrictions. Over time, most were lifted. The ban on interstate transmission remained, however, and would be revisited in the 1996 Communications Act. In contrast, the admixture of conduit and content continues as an issue in a broadened context, but seems of late almost to have disappeared from the national dialog. Telecommunications restructuring at this time also took shape in an FCC program requiring the adoption by RBHCs of measures for physical and virtual coloration and unbundling, dubbed open network architecture and comparably effident interconnection, designed to increase network accessibility to rivals. There also was a shift from rate base, rate-of-return regulation to variants of price cap or incentive regulation, ending controls on profits (Miller 1993, 25-26; Trebing 1994, 381).

The restructuring was undertaken in the name of competition. Deregulation and relaxed regulation were viewed as equivalent to or

a step in the direction of competition. But, despite these measures, RBHC dominance in local service markets barely budged. The telephone industry seemed less interested in competing than consolidating. The 1990s were a decade of significant nationwide industrial merger and acquisition (M&A). Nowhere was the activity more extensive than in telecommunications.

In the 1990s the telecommunications industry ranked in either first or second place in the dollar volume of M&A in eight of the eleven years from 1990 to 2000 (Blumenstein 2000b, R4). With competition as its rationale, that is, the reasoning that in this arena scale was required to compete, the number of players dropped sharply. With the merger of Bell Atlantic and Nynex 2 (renaming itself Verizon) and the acquisition by SBC of PacTel and Ameritech, the RBHCs were down to four. AT&T acquired the cable companies TCI and MediaOne,3 and became the largest cable company in the nation. In so doing, AT&T was attempting to position itself to by-pass RBHC local networks, using broadband cable for transmission of voice and data. The acquisitions were costly4 and resulted in massive debt. Expensive upgrades and construction also were required.

Competition in local telephone markets was proving elusive. It had been anticipated, first, that RBHCs would provide competition to each other. Instead they were consolidating. Long distance companies and competitive local exchange carriers (CLECs) also were believed to be prospective sources of competition. But these companies claimed that the Bells were raising impediments to interconnection in the form of unwarranted delays and high asking prices for lease of lines. This claim was countered by the Bells' charges of "cherry picking" by rivals, that is, the pursuit by rivals only of high volume customers. It is unquestionable that an alternative to lease of Bell lines, construction of a duplicate network, would be expensive, assuming regulatory approval. It is also uncertain, if such a network were to be built, that it would draw sufficient customers (Zeigler 1998, R6). Cable by-pass was proving slow and expensive and had not been notably successful in attracting users. In any event, RBHC dominance in local telephone markets continued even while the Bells sought new business opportunities, and service complaints mounted.

Thus, at the time that the 1996 Telecommunications Act (the Act) became law viable competition had not materialized, neither through facilities-based carriage by rival companies, nor through lease of Bell facilities, nor through by-pass of the Bells by cable and wireless. The Act was intended to provide the corrective. Among its provisions was one that permitted the RBHCs to offer long distance service in their home territories conditioned upon a demonstration that they had opened local markets to competition (Bolter 1997, 454). The FCC was given responsibility for evaluating such claims and drew up a fourteen-point checklist for the RBHCs to meet. But not much changed after passage of the Act. Claims by potential rivals of high asking prices for lease of lines and RBHC-imposed delays continued, as did RBHC charges of cherry picking.5 Anticipated by-pass by cable and wireless did not materialize. New entrants are estimated to serve only about 3 percent of residential

and small business consumers (Schiesel 2000, Cl).

AT&T's problems were not confined to local markets. Reports of difficulties and imminent structural change had been circulating for months (Blumenstein 2000a, Al; Deogun and Blumenstein 2000, C I). The problems were partly inherent to technical requirements. As noted, telecommunications requires that plant be in place in advance of demand, mandating large-scale investment, with potential for over-capacity. It also breeds uncertainty, because it cannot be known if and when demand will materialize. In telecommunications, redundancy is evident in long distance services. Moreover, technological advance itself may introduce redundancy. For example, fiber optics has experienced rapid technological advance, lowering costs. The same amount of fiber transports significantly greater quantities. The growth in demand for fiber optics has not kept pace with supply (Pearlstein 2000, 16-18; Heinzl 2000, B 1). Over-capacity carries with it the potential for costly price wars, evident in these markets, especially when it comes to high users.6 In addition, AT&T's expensive cable acquisitions (\$115 billion), with their requirements for extensive and costly upgrades and new construction, had resulted in massive debt (\$61 billion) (Cauley 2000, B 1). Meanwhile, customer demand for cable/telephony had failed to meet expectations. Thus, AT&T's bottom line results had taken a dismal turn. Its core consumer long distance and business services were slowing, its earnings and cash flow down, its stock prices plummeting (Cauley 2000, B 1; Solomon and Deogun 2000b, B 1, Crossen and Solomon, 2000, Al). In October 2000, AT&T made the stunning announcement of the breakup of the company.

The company was to be split into four: consumer long distance, business services, broadband, and wireless. Consumer long distance and business services would remain under the current chairman. New companies would be created for cable and wireless. Each of the four pieces would trade separately with its own stock symbol. AT&T ownership in wireless, a tracking stock, was to be spun off to stockholders. Cable, which for tax reasons could not immediately be spun off, would trade as a tracking stock and be spun off in about two years. In the interim, AT&T could take public a minority interest in the cable unit through an initial public offering (IPO). The expectation was that the parts would attract new investors, thus raising cash needed to help pay down debt7 (Solomon and Deogun 2000a, A3). But the grand plan of AT&T to create a full-service company capable of delivering voice, data, and video over one pipe seemed over.8 There is little doubt that in breaking up the company AT&T was attempting to reverse its stock decline. Comments by its chairman confirm a commitment to that goal.9 A focus on financial indicators, however, tends to obscure real problems.

The RBHCs, on the other hand, are doing very well indeed. They are physically connected to every home and business in their territories and virtually control local service. Competition has not emerged, despite legislative and regulatory efforts. The RBHCs are not competing in each other's territories, but consolidating. Whether because of roadblocks thrown up by RBHCs or their pursuit of high usage customers, CLECs have not provided competition. The breakup of

AT&T does not bode well for its continued activity in local markets. It appears unlikely that other operations of AT&T will be willing or able to subsidize cable's efforts to by-pass the local loop. The major pro-competitive prod of the Act was the provision that allowed RBHCs into long distance markets upon a demonstration of open local markets. They have maintained their dominance in local markets, yet are beginning to enter long distance. 10 The Bells will be able to use their local near-monopoly as a base to extend into ancillary markets. With facilities in place, when authorized the RBHCs will be able to offer long distance service at a relatively low cost. They will not have to pay for access-they own the local loop. They also are moving afield. RBHCs are the largest wireless operators in the nation. 11 They are looking to deliver DSL internet service and Web hosting beyond their territories (Young 2000a, B 1; Schiesel 2000, C 1). They have significant interests beyond national borders. The dream of AT&T to be a full service provider would seem close at hand for its progeny. Such is the power of control of essential facilities.

The fulfillment of the dream has not been costless. The essence of market power is that it endows its possessor with the ability to shift costs and risks to others-onsumers, employees, rivals, society as a whole. If the Bells seem the winners in this, basic service consumers and company employees appear to be among its losers. The cost of the Bells' expansion is high, as is the toll on focus and attention. While it is anticipated that new services will experience the most growth, it is unquestionable that traditional voice services now supply the greater part of revenues, 12 and will continue to do so for some time to come. Moreover, although long distance and other prices have fallen sharply, if unevenly, real local rates have shown no such decline (Schiesel 2000, CI). It is clear that the benefits of technological change have been distributed disproportionately.

At the same time, the high cost of new ventures must be recovered. Price-inelastic local service is an obvious means to this result. State PUCs increasingly are fining companies for lengthy customer connection and repair waits. Disinvestment in local core services is evident. At the same time, RBHC cost cutting included lay-offs and early retirements, increasing demands on remaining workers even while service neglect intensifies (Blumenstein and Mehta 2000, At; Solomon 2000, BI; Jacobs 2000, 134).

The question of how to exercise social control is familiar even if not yet fully answered in traditional telecommunications. It has barely begun to be addressed in regard to such new services as cable and wireless. Open access has become a virtual mantra, viewed by some as all-purpose cure, by others as undemocratic compulsion ("forced access"). The phrase is ambiguous-definitions range from opening lines to one provider to opening them to all on a nondiscriminatory basis. At present, it primarily is discussed in application to cable, in the questionable belief that it has been achieved in traditional telephony. The FTC recently approved an AOL-Time Warner merger with non-discriminatory open access conditions. 13 The requirements placed on AOL-Time Warner resemble

the open access in effect for RBHCs. But as the RBHC experience demonstrates, a gatekeeper may find it possible to subvert such control.

Control of access is a powerful tool. The history of telecommunications is replete with examples of its abuse. But is open access sufficient to ensure network viability? Harry Trebing, in reference to traditional utilities, has identified conditions indispensable to extensive smoothly functioning networks. These include mandatory interconnection, reporting, and independent monitoring, all encompassed in the AOL-Time Warner agreement. Trebing adds that a properly functioning network also requires safeguards against cross subsidization and disinvestment in core service, and use of costing and pricing methodologies that share benefits of the network proportionately (1994, 385-6).

An additional step is required, at least when it comes to traditional utilities: the separation of competitive from network services, preferably in independent companies, but at a minimum in structurally separated units. In the absence of such a requirement, the potential for abuse remains. Under such a framework, competitive services would be deregulated, while local distribution and network transmission, where inherent operating conditions invite limit entry pricing and denial of access and preclude development of competition, is subject to stringent regulation (Trebing 1997, 38-9). Equal access alone will not ensure that network facilities are fully interconnected and nonpreferentially open, and nor will it assure an appropriate sharing of costs and benefits. The question of whether these or similar safeguards should be applied in the case of newly evolving services remains open. These conglomerates present us with dazzling technical opportunity and massive concentration of power, a co-existence of promise and threat.

To return to the question that engaged us initially, it is clear that neither deregulation nor competition is the source of technological advance. Technological advance occurs because of the human propensity to inquire; it may even be retarded in the cost-cutting environment of deregulation. Market capitalism cannot be equated with democracy, as is the current wont. It is not market capitalism, but freedom of thought that encourages inquiry. And nor can we rely on technological change to end the need for social control. Technological advance will not necessarily break down market barriers nor decrease network economies. For example, the development of broadband and fiber optics has been, if anything, centralizing. Although, unquestionably, there is industrial response to technological change, the direction of that response is not uniform. The principle to be applied is that of judging each situation on its merits, free of ideological trappings. Market power will endure, even if in modified form. Regulation is no more constant than market power or technology; it must be changed to accommodate new realities. Neither the fact of power nor the need for its control oas, only its dace.

The author is a former commissioner and chair of the Colorado Public Utilities Commission. This paper was presented at the annual meeting

of the Association for Evolutionary Economics, New Orleans, La., USA, January 5-7, 2001.

Footnotes:

- 1. For example, it is claimed that innovation and investment in new technology are retarded under regulation because all gains from investment are passed on to ratepayers by regulators, viewed as invariably focused upon equity rather than efficiency, while losses are required to be borne by the firm. It should be added that many of these critics of regulation seem to regard any decision, irrespective of attributes and results, that may be interpreted as favoring the ratepayer, as pursuing equity at the expense of efficiency.
- 2. Bell Atlantic would also acquire GTE.
- 3. The FCC has been generous in its approval of mergers, betokening its belief in the efficacy of market control. The mergers of telephone companies and, in the case of AT&T, the easing of national cable ownership restrictions, seem to have been approved on the premise that large size would permit the growth of competition in local service markets. It is also of interest that the AT&T-TCI merger was approved without any provisions for "open access" to the cable lines.
- 4. It is a not uncommon view that they also were overpriced.
- 5. SBC has been fined \$6.1 million by the FCC for failing to open its system to **competition** (Young 2000b, BE). Claims by internet service providers (ISPs), dependent upon the Bells for access via standard copper lines or DSL, that the RBHCs use delaying and obstructionist tactics also give credence to **CLEC** allegations (Weber 2000, B 1).
- 6. Typically, low use customers did not experience comparable price decreases. The **long distance** companies WorldCom and Sprint are also suffering the detrimental effects of price wars in the upper end **market**.
- 7. In a 1995 breakup, AT&T had spun off its equipment and computer units, Lucent and NCR. The Lucent IPO netted AT&T over \$30 billion.
- 8. The Bell system commitment to basic research would seem also to have been ended by the restructuring, providing a variant on what John R. Commons called "the menace of competition," in which a widening of a market causes standards in the industry to be driven down to those of the marginal producer (see Atkinson, Nichols, and Olson 2000). The 1995 break-up called for Bell Labs, responsible for so many breakthrough inventions including the transistor and the solar cell, to be split in two. A majority of the employees were to be moved to the equipment unit Lucent, where one suspects they will be working on product improvement, rather than basic science (Ziegler and Gautam 1995, A7).
- 9. For example, shortly before the breakup Chairman C. Michael Armstrong pointed to the need to think about "delivering shareholder value" (Cauley 2000, Al).

- 10. To date, two of the Bells have been authorized to provide long distance service in one state in their region, Bell Atlantic in New York, and SBC in Texas. The companies have been very successful in attracting long distance customers in both states. In addition, Qwest was a long-distance provider when it acquired USWest, and GTE had extensive long distance operations at the time of its acquisition by Bell Atlantic. They are barred from the provision of long distance service only in their regions.
- 11. Verizon Wireless, a joint venture of Bell Atlantic, GTE, and Vodaphone, is the nation's largest wireless provider. Cingular Wireless, a joint venture of SBC and Bell South, is second, and AT&T third.
- 12. Approximate revenue estimates for the years 2000 and 2004 (in billions) are: Local-\$ 120, \$170; long distance-\$105, \$125; residential high speed access-\$3, \$19; wireless-\$60, \$120 (Blumenstein 2000b, R4).
- 13. As this paper was written, the FTC approved the merger of the Internet provider AOL and the entertainment cum publishing cum broadcasting cum cable conglomerate Time Warner. Time Warner is the nation's second largest cable provider, surpassed only by AT&T. Approval of the merger was conditioned upon acceptance by the parties of provisions that cable lines be open on a nondiscriminatory basis to at least three additional Internet service providers (ISPs), with the potential for adding others unless precluded by technical limitations. The agreement also included reporting and monitoring requirements aimed at ensuring compliance. The AOL-Time Warner merger also will require FCC approval. The FTC agreement intensifies the pressure on AT&T (resisted to date) to open its cable lines. The issue of Time Warner and AT&T co-ownership has been raised and may be addressed, if only indirectly. One of the options given AT&T by the FCC to put AT&T in compliance with FCC rules limiting control of cable is the sale of its stake in Time Warner Entertainment (Cauley and Wigfield 2000, 138). However, the significant issue of the mingling of content and conduit at present does not seem to be on the national radar screen.

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